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PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number (Optional) 060258-0290575

	Application Number	Filed
	10/026,944	December 27, 2001
	First Named Inventor: Ari HOTTINEN	
	Art Unit: 2618	Examiner: DEAN, Raymond S.

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- [ ] applicant /inventor.
- [ ] assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- [x] attorney or agent of record. Registration number 44,163
- [ ] attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____

/Larry J. Hume/
Signature

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Typed or printed name

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Telephone number

July 24, 2007
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

- [ ] *Total of 1 forms are submitted.

400603500V1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of:
ARI HOTTINEN
Application No.: 10/026,944

Confirmation Number: 7322

Group Art Unit: 2618

Filed: December 27, 2001

Examiner: DEAN, Raymond S.

Title: METHOD AND ARRANGEMENT FOR IMPLEMENTING POWER CONTROL

ARGUMENTS SUBMITTED WITH PRE-APPEAL BRIEF CONFERENCE REQUEST

MAIL STOP AFTER FINAL
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Final Office Action dated January 24, 2007, and in conjunction with the "Notice of Appeal" and the "Pre-Appeal Brief Request for Review" filed concurrently herewith, the following arguments for patentability over the art of record are submitted for consideration by the Appeal Conferees.

Claims 1-11, 14-32, and 34-41 are pending; claims 1, 2, 22, and 23 are independent; and claims 3-11, 14-16, 21, 24-32, 34-37, and 41 are multiple dependent claims.

I. LEGAL AND ADMINISTRATIVE INCONSISTENCY OF THE FINAL ACTION

In view of the legal and administrative inconsistencies of the Final Office Action at page 3, paragraphs 2 and 3 with respect to the explicit statement of the rejection of claims 1-10, 18, 22-31, 34, and 37-38, Appellant requests that a new action correcting and clarifying the rejections of these claims in the official record be provided for the benefit of the Board of Appeals and Patent Interferences if a Notice of Allowability is not forthcoming in response to this communication.

The explicit statement of the rejection states that the claims 1-10, 18, 22-31, 34, and 37-38 are "anticipated" by a combination of applied art under "35 U.S.C. 102(e)". It appears that the Examiner may have intended to invoke an unpatentability rejection under §103(a). Accordingly, since the explicit statement of the rejection is legally erroneous and the record unclear, a new action clarifying the legal basis for the rejections is requested before proceeding to the Board of Appeals. However, Appellant notes that the arguments presented in this Request are addressed under the assumption that an unpatentability rejection under 35 U.S.C. §103(a) was intended.

II. REJECTIONS TO BE REVIEWED UPON APPEAL

The grounds of rejection submitted for review are those identified in the Final Office Action, and include:

A. ***Anticipation rejection***[1] of claims 1-10, 18, 22-31, 34, and 37-38 under 35 U.S.C. §102(e), as allegedly being "anticipated by Müller (US 6,490,461) in view of Rick (US 2002/0057748)";

B. Unpatentability rejection of claims 11 and 32 under 35 U.S.C. §103(a), as allegedly being unpatentable over Müller (US 6,490,461) and Rick (US 2002/0057748) in view of Tong et al. (US 6,311,070);

C. Unpatentability rejection of claims 15 and 35 under 35 U.S.C. §103(a), as allegedly being unpatentable over Müller (US 6,490,461) and Rick (US 2002/0057748) in view of Mitra et al. (US 5,732,328);

D. Unpatentability rejection of claims 16-17 and 36 under 35 U.S.C. §103(a), as allegedly being unpatentable over Müller (US 6,490,461) and Rick (US 2002/0057748) in view of Denkert et al. (US 6,374,117);

E. Unpatentability rejection of claims 19-20 and 39-40 under 35 U.S.C. §103(a), as allegedly being unpatentable over Müller (US 6,490,461) and Rick (US 2002/0057748) in view of Shah (US 6,167,259);

F. Unpatentability rejection of claims 21 and 41 under 35 U.S.C. §103(a), as allegedly being unpatentable over Müller (US 6,490,461) and Rick (US 2002/0057748) in view of Gatherer et al. (US 2002/0115463);

Due to page limits, each rejection will not be analyzed separately. Instead, the Arguments presented below are directed to the unpatentability rejection of independent claims 1, 2, 22, and 23 over the combination of Müller and Rick in paragraph I.A., above, without recourse ***at this time*** to arguing the various patentable features of the dependent claims. The various tertiary references do not make up for the deficiencies of Müller and Rick as discussed below.

III. THE APPLIED ART

Discussion of Müller

According to the Abstract, Müller purportedly relates to a wireless telecommunications system in which mobile station power control is affected by a functional combination of signal-to-interference sampling, bit error rate sampling, and frame error rate sample. The signal-to-interference sampling allegedly provides rapid power control adjustment, while the bit error rate and frame error rate factors provide less speedy but better power control adjustment. The power control function allegedly has applicability in single link and multiple link power control adjustments.

[1] Although this explicit statement of the rejection indicates that various claims are "anticipated" under "35 U.S.C. 102(e)", it appears that the Examiner may have intended to invoke an unpatentability rejection under §103(a), and, although the rejection is unclear, the arguments presented herein are addressed accordingly.

Further, and as stated in previous responses, Müller utilizes conventional methods of FER estimation, *i.e.*, "measurements can follow standard kinds of frame error rate measurements (see col. 5:26-27)". Although Müller mentions the ***concept*** of soft decisions (see col. 4:50-51), Müller does not utilize soft decisions at all, including the claimed use of a soft decision estimate relating to the reliability of the signal, and certainly does not estimate the error probability for a given number of bits in a frame for the received signal on the basis of the soft decisions provided by a decoder. In fact, ***the Examiner admits this deficiency of Müller***, *i.e.*, that there is no teaching or suggestion of estimating the error probability for a given number of bits in a frame for the received signal on the basis of soft decisions provided by the decoder.

Discussion of Rick

The Examiner alleges that Rick makes up for this deficiency of Müller. Appellant traverses this technical mischaracterization and clearly overreaching interpretation of the applied art.

According to the Abstract, Rick purportedly relates to a device which decodes data encoded with a cyclic code in communications systems where a convolutional code is applied after the cyclic code during encoding. Specifically, the device accepts data provided in time reversed order by a Viterbi decoder which decodes the convolutional code.

As disclosed in Rick paragraph [0010], a stated object of Rick's invention is to provide a circuit which receives data encoded with a cyclic code where a convolution code is applied after the cyclic code during the encoding process. The circuit then decodes the data in reversed-time order without buffering any bits. Rick utilizes a time-reversed data implementation that adapts the CRC to accept data from a Viterbi decoder as the data is available, rather than buffering the data until the Viterbi decoder is finished. Therefore, as Rick discloses in paragraph [0029], the CRC is adapted to produce the same result from receiving time-reversed data as would have occurred with the previously conventional technique of buffering decoded data and then generating the CRC code.

Rick discloses at paragraph [0007] that typical communications systems encode data first with a cyclic code for error detection, and then with a convolution code for error correction. The CRC code of Rick is utilized merely for conventional error detection, a***nd not for the purpose of any error correction or estimation of any error probability***.

The Examiner cites Rick at FIG. 6 and paragraphs [0009] and [0029] as teaching Appellant's recited "estimating the error probability for a given number of bits in a frame for the received signal on the basis of the soft decisions provided by the decoder" (in claim 1, and similarly for the other

independent claims. What Rick actually teaches in FIG. 6 is that a CRC circuit receives the output of a Viterbi decoder, as shown below.

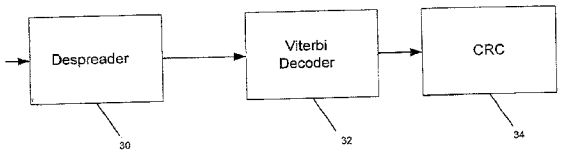

Figure 6

In paragraph [0009], Rick states:

> "In most applications, the CRC bits in a receiver are calculated after a Viterbi decoder. Optimal Viterbi decoding requires a full "traceback" to calculate the input bits, which results in the input bits to the CRC generator being available in time reversed order. If the conventional method of calculating the CRC bits is used, the input bits need to be buffered up and fed into the CRC generator after all of the input bits are generated. It would be preferable to calculate CRC bits from a frame of data that is available in time reversed order (*i.e.*, last bit available first) since this would allow the quality of a frame to be checked simultaneously with the Viterbi decoding, without buffering any bits. This reduces the hardware and other device complexity in implementation."

In paragraph [0029], Rick states:

> "In receivers for many practical communications systems, including J-STD-008, the CRC is calculated after the Viterbi decoder. A Viterbi decoder generally outputs data in time reversed order if a full traceback is done. It is generally desirable to just push CRC input data into the CRC generator circuit as it becomes available instead of buffering up all of the data and taking the extra step to generate the CRC after the Viterbi decoder is finished. What is needed is a circuit that produces the same CRC, given by c(x) above, but accepts the input data in time reversed order."

In light of the above, Appellant respectfully submits that the Examiner's technical analysis of Rick is incorrect because Rick fails to teach or suggest use of soft decisions for error correction. In fact, Rick does not even mention soft decisions at all, but merely that the output of a Viterbi decoder is provided to a CRC circuit for conventional error detection.

Contrary to the Examiner's rationale as presented in the Final Office Action, one skilled in the art would have been aware that CRC is conventionally calculated using hard decisions, a hard decision that relates to error detection, and not error correction. Thus, Rick does not teach or suggest the claimed use of soft decisions to estimate the probability of correct frames for the received signal based on the soft decisions provided by the decoder. In fact, other than decoding the data in reversed-time order without buffering any bits in the CRC circuit, Rick fails to teach or suggest anything new beyond what is already disclose in Müller.

III. SPECIFIC DEFICIENCIES OF THE APPLIED ART

A. The Examiner has not established a *prima facie* case of unpatentability of claims 1-10, 18, 22-31, 34, and 37-38 under 35 U.S.C. §103(a) over Müller (US 6,490,461) in view of Rick (US 2002/0057748) because the applied art does not teach or suggest all the claimed limitations.

Clearly, the admittedly deficient teachings of Müller and none of the cited portions of Rick discussed above teach or suggest a method for implementing power control on a connection between two transceivers, wherein the method includes, *inter alia*, "…estimating the error probability for a given number of bits in a frame for the received signal on the basis of the soft decisions provided by the decoder…", as recited, for example, in independent claim 1, and as similarly recited in all the remaining independent claims 2, 22, and 23 and their respective dependent claims.

IV. CONCLUSION

In view of the above Remarks and clearly identified deficiencies of the applied art, reversal of the Examiner by the Appeal Conferees and allowance of pending claims 1-11, 14-32, and 34-41 in this Application are respectfully requested. In the event the Examiner believes that an interview would be helpful in resolving any outstanding issues in this case, the Undersigned Attorney is available at the telephone number indicated below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 03-3975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Date: July 24, 2007

Respectfully submitted,

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